CW#58: Application of Radicals

Geometry

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_

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| Bronze | | | |
| Directions: Simplify completely. | | | |
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| Application to Pythagorean Theorem | | |
| Example #1 ../../../../../Desktop/Screen%20Shot%202016-01-09%20at%2010.15.04%20AM | Steps:   1. Apply \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_ for x 3. \_\_\_\_\_\_\_\_\_\_\_\_\_ the radical | Try it! |
| ../../../../../Desktop/Screen%20Shot%202016-01-09%20at%2010.21.49%20AM | | 1. ../../../../../Desktop/Screen%20Shot%202016-01-09%20at%2010.22.30%20AM |
| 1. ../../../../../Desktop/Screen%20Shot%202016-01-09%20at%2010.23.19%20AM | | ../../../../../Desktop/Screen%20Shot%202016-01-09%20at%2010.24.11%20AM |
| 1. Jonathan found the length of a hypotenuse of a right tirangle to be . Can the length be simplified? Explain. | | |

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| Silver | | | |
| Directions: Find the distance between the two given points. | | | |
| 1. (-3,1), (5,-1) | 1. (5,-3), (-1,6) | 1. (7,1), (7,-5) | 1. (7,6), (-6,-3) |
| 1. Sarahi found the distance between two points on a coordinate plane to be Can this answer be simplified? Explain. | | | |

Variables

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| Copy into your notebook!  Product property of exponents:  Example: | | | |
| Directions: Use the product property of radicals to simplify each radicand with variables! | | | |
| What’s the pattern between variables with even exponents when they are under the square root? | | | |
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| Multivariable | | |
| [add hand written work] |  |  |
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| Gold |
| 1. The captain of a ship recorded the ship’s coordinates, then sailed north and then west, and then recorded the new coordinates. The coordinates were used to calculate the distance they traveled, √578 km. When the captain asked how far they traveled, the navigator said, “About 24 km.” Is the navigator correct? Under what conditions might he need to be more precise in his answer? |
| 1. Find the area of the shaded region below.   ../../../../../Desktop/Screen%20Shot%202016-01-09%20at%2011.27.30%20AM |